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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/772,469	01/30/2001	Michael Lanzaro	7157-271	1673

7590

09/12/2002

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EXAMINER

KIM, AHSHIK

ART UNIT PAPER NUMBER

2876

DATE MAILED: 09/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicati n N .

09/772,469

Applicant(s)

LANZARO ET AL.

Examin r

Ahshik Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other: .

## DETAILED ACTION

### *Continuation Data*

1. Acknowledged this application is a continuation-in-part of U.S. Serial No. 09/304,296,  
5 filed May 3, 1999, which is a continuation-in-part application of U.S. Serial No. 09/010,908,  
filed January 22, 1998, now abandoned, which is a continuation-in-part application of U.S. Serial  
No. 08/531,492 filed September 21, 1995, now abandoned, which is a continuation application of  
U.S. Serial No. 08/068,204 filed May 28, 1993, now US Patent 5,416,310. This application  
further claims the benefit of provisional application Serial No. 60/179,225 filed January 31,  
10 2000.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the  
basis for the rejections under this section made in this Office action:

- 15 A person shall be entitled to a patent unless –  
  
(b) the invention was patented or described in a printed publication in this or a foreign  
country or in public use or on sale in this country, more than one year prior to the date of  
application for patent in the United States.

- 20 2. Claims 1, 4-6, 16-19, 22, and 25-30 are rejected under 35 U.S.C. 102(b) as being  
anticipated by Bunte et al. (US 5,873,070).

Re claims 1, 14, 16, 17, and 30, Bunte teaches a portable data collection device 10,  
comprising a display device 18, appropriate circuitry for decoding of captured data, which  
communicates with host machine in wireless manner, and the host machine in turn is a part of

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wireless network (col. 4, lines 53+). As shown in figures 3 and 4, the terminal 10 contains connectors/bosses 50 and 52, and a scanner 26 which can be a laser scanner. One of the peripherals, which can be connected to terminal 10, is touch panel as recited in claim 7 (col. 3, lines 5+).

5           Re claims 5, 6, 22, and 27, Bunte's device 10 discloses various holders 54 and 56 for peripheral device. Furthermore, Bunte teaches that the batteries 62 are connected to the terminal 10 (col. 5, lines 54+) and be recharged while connected to the terminal 10. The series of batteries can be pivotally interconnected sot that the battery can be utilized in serial, parallel or sequentially. Although not shown, the battery system further includes indicator light showing  
10   charge-state of the system.

Re claim 18, optically readable information 22 such as barcode on an object is decoded and displayed to the user via his display (col. 5, lines 5+). As well known in the art, the reader contains photosensitive array such as CCD to capture the indicia/image to be read (col. 11, lines 45+).

15           Re claim 19, the system 10 further includes a headset 16 and microphone 20 (col. 4, lines 53+;) for receiving voice commands. Figures 10 and 11 further show voice recognition features of the system.

Re claim 25, as shown in figure 8, the system incorporates a scheme wherein the low-powered channel is selected and tested for acceptable reception of the signal. Based on the  
20   testing, the channel is selected or increased iteratively for optimal power use (col. 6, lines 13+).

Re claim 26, although not disclosed in explicit manner, the device 10 is part of the network as shown in figure 10. Accordingly, the network is operated by a network protocols

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such as communications protocols 152 (col. 6, lines 43+). It is well known that such communication protocol provides time limit and request for communication is dropped if the message is not subsequently received once initiating protocol is accepted.

Re claim 28, the system 10 also contains PCMCIA compatible slot/connector 32 and a  
5 plurality of other connectors (col. 5, lines 12+).

Re claim 29, since data collection system is in the embodiment of a belt, which is made up of durable plastic or foam material, it would provide protection for the component parts against unintended banging/hitting.

10

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

15

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out  
25 the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bunte et al. (US 5873,070) in view of Barna (US 5,971,270). The teachings of Bunte have been discussed above.

Since Bunte's embodiment comprises a network environment, and it is inherent that the components (i.e., base station, terminal, peripheral devices) in the network can be uniquely identified in electronic sense, Bunte fails to specifically teach or fairly suggest that the terminal has label affixed to the device.

Barna teaches an identification system 10 that can be applied to an electronic device 12 utilizing identification label 18 (see abstract; col. 3, lines 5+).

In view of Barna's teaching, it would have been obvious to an ordinary skill in the art at the time the invention was made to employ a notoriously old and well-known identification system utilizing a label. Identified products are inventoried and accounted for, providing users with capacity to manage logged parts/devices. Often such system incorporates other data such as where and who are responsible, reducing a potential loss from lost/stolen product. Moreover, tagged items are easier to manage, and can be used in deploying newer products and keep track of them, and therefore an obvious expedient.

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4. Claims 7, 8, 21, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bunte et al. (US 5,873,070) in view of Durbin et al. (US 6,039,258). The teachings of Bunte have been discussed above.

Although Bunte discloses a touch-panel (see abstract) as one of the peripherals of the system, Bunte fails to specifically teach or fairly suggest that the keyboard array can be reconfigured. As shown in figure 4, some function key on the touch panel includes "SET", "OFF" and "RUN", and function "RUN" can be interpreted as a start key as recited in claim 23. Field of view can be extended to accommodate left-handed or right-handed users (col. 11, lines 35+) as disclosed in claim 24.

Durbin teaches a portable data collection terminal wherein the virtual keys are integrated with touch screen input display (col. 3, lines 49-51; col. 9, lines 20-34). The virtual keys can include icons and other graphical symbols.

In view of Durbin's teaching, it would have been obvious to an ordinary skill in the art at the time the invention was made to employ well-known touch-sensitive and reconfigurable keypad to the teachings of Bunte in order to improve user interface in data collection terminal. Incorporating such a virtual keyboard utilizing touch screen, the system becomes flexible, not restricted in anyway by the limit of a conventional keyboard. Moreover, the system becomes compact in size, and easily portable compared to the system requiring separate keyboard, and thus an obvious expedient.

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5. Claims 9-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bunte et al. (US 5,873,070) in view of Levie et al. (US 6,065,679). The teachings of Bunte have been discussed above.

Bunte fails to specifically teach or fairly suggest of utilizing light pipe installed under the display, and to effect an actuation of the key.

Levie teaches a portable data collection terminal 30 comprising a keypad 42, a display area 40, and a light pipe 50 is installed underneath the keypad (col. 4, lines 50+). The light pipe is also layered under the display opening 60. The light pipe is installed on the PCB utilizing plurality of tabs, which can snap onto the corresponding holes on the PCB, a resilient material.

10 In view of Levie's teaching, it would have been obvious to an ordinary skill in the art at the time the invention was made to employ well-known light pipes to the teachings of Bunte in order to provide emphasizing effects for certain keys and for the device. For example, a light pipe can be turned under a key when asking for user's confirmation, or the light pipe can blink as user press the keys. Incorporating such an user-friendly or attention-grabbing elements to the data collection device improves overall functionality of the system, reducing the opportunity for the errors and thus an obvious extension. Moreover, method of slidable mounting of hinge mounting, to one of ordinary skill in the art, can be considered functionally equivalent to snap on tab disclosed in Levie.

20 6. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bunte et al. (US 5,873,070) in view of Rando et al. (US 6,290,134). The teachings of Bunte have been discussed above.



Bunte fails to specifically teach or fairly suggest of indicating that the portable data collector is out of range when the distance exceeds working range between the terminal and the base.

Rando teaches a portable data collection terminal wirelessly interfacing with the host  
5 wherein the indication/warning is provided when the scanner module 10 is separated beyond working distance from the host (col. 9, lines 22+).

In view of Rando's teaching, it would have been obvious to an ordinary skill in the art at the time the invention was made to employ well-known "wireless handcuff" to the teachings of Bunte in order to ensure operation of the system without loss of data. By implementing such  
10 out-of-range indicator, the users can ensure to work in operable range from the host avoiding loss of data or redundant data entry/operation. Moreover, since the host can keep track of all portable devices, the loss resulting from lost/stolen terminal can be reduced, and thus an obvious expedient.

15 *Conclusion*

I. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Rando et al. (US 6,290,134); Katsandres et al. (US 6,119,941); Miller et al. (US 5,917,175); Täusch et al. (US 5,811,784); Nelson (US 5,939,695); Schlieffers et al. (US 6,394,355); Callaghan et al. (US 6,058,304); Koenck et al. (US 6,006,100) disclose data  
20 collection terminal and related methods.

II. Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Ahshik Kim* whose telephone number is (703)305-5203 . The examiner can normally be reached between the hours of 6:00AM to 3:00PM Monday thru Friday.

25 If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee, can be reached on (703) 305-3503. The fax number directly to the

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Examiner is (703) 746-4782. The fax phone number for this Group is (703)308-7722, (703)308-7724, or (703)308-7382.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [ahshik.kim@uspto.gov].

*All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.*

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

Ahshik Kim  
Patent Examiner  
Art Unit 2876  
September 6, 2002

  
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